



#12

## SEQUENCE LISTING

&lt;110&gt; WEI, Ming-Hui et al

<120> ISOLATED HUMAN G-PROTEIN COUPLED  
RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR  
PROTEINS, AND USES THEREOF

&lt;130&gt; CL001202

&lt;140&gt; 09/820,095

&lt;141&gt; 2001-03-29

&lt;160&gt; 25

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 2693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1

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gacaggctgg	gggcttctgg	attataagac	ggagaagtat	gtgatgacca	ggaactggcg	420
ggtgggcgcc	ctgcagaggc	tgctgcagtt	tgggatcgtg	gtctatgtgg	tagggtaaga	480
gagaagagct	tttggccagg	ctggaggggc	aaggggaagag	gtgggggggtg	gggcttggtc	540
ctgctgggtt	gaagttgagg	gttgggctgt	ttaggggctg	gagtggaagg	gggcagattg	600
g						601

<210> 9  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 9						
agtgtccctt	taacagcaac	tggcctggcc	tggctcgggc	cctgctttgc	ctcctgttca	60
gctgcggctg	cagctgccat	gctgactcat	gtgccgcag	ctagcaggag	ctggcagcat	120
gggctcccca	ggggctacga	caggctgggg	gcttctggat	tataagacgg	agaagtatgt	180
gatgaccagg	aactggcggg	tgggcgccct	gcagaggctg	ctgcagtttg	ggatcgtggg	240
ctatgtggta	gggtaagaga	gaagagcttt	tggccaggct	ggaggggcaa	gggaagaggt	300
sggggggtggg	gcttggtcct	gctgggttga	agttgagggg	tgggctgttt	aggggctgga	360
gtggaagggg	gcagattggg	acgggggttg	ggagagctag	gcgatacaag	acaggagagc	420
aagaacaagc	tgtgtgtttg	tcctgtgtgt	ccacttgctt	ccttcccagg	ccccaccca	480
ggccccaccc	agggggcaca	tgacatagtc	cttaacatct	gtgagagctg	gagcactagg	540
ccccagaga	gaccaccagc	tgtatctcgg	gtcaggagag	tctgtaaggg	ggaagctgga	600
t						601

<210> 10  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 10						
gtatctcggg	tcaggagagt	ctgtaagggg	gaagctggat	ctagtcaggc	tgggggtggg	60
tgctggctag	tgaaggtgat	tgtctgaggg	cattggctct	ctgatgcatg	gctggagctt	120
ctgtctcatt	cagggggtct	ggagtgggaa	gtggggccag	agaggaggtg	gggccttcga	180
tggtgggccc	ggagcctgta	gggtgtgggg	ggagaactga	gcatgtaggg	ctcagctccg	240

```

ccccctgtcac tacacgctgg ggacacacca cactgcccga cttctcctcc ccaggtgggc 300
kctcctcgcc aaaaaaggct accaggagcg ggacctggaa cccagtttt ccatcatcac 360
caaactcaaa ggggtttccg tctctcagat caaggagctt ggaaaccggc tgtgggatgt 420
ggccgacttc gtgaagccac ctccaggtggg ggccctgatg ttgctgacgg gggcgcaagt 480
cctttcccca ctgacagcct gaacaccgcg catgcagcca gtgtgtgcga gagagaagca 540
tgtgatgccg gagacggctg cgggtttctca ggaagggtt cagagaggag tggcacctgg 600
a 601

```

```

<210> 11
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 11
atgtggccga cttcgtgaag ccacctcagg tggggggcct gatgttgctg acggggggcgc 60
aagtcctttc cccactgaca gcctgaacac ccgccatgca gccagtgtgt gcgagagaga 120
agcatgtgat gccagagacg gctgcgggtt ctccaggaagg gcttcacaga ggagtggcac 180
ctggacagga ctttcaggga tgtgtaggag gttttggggt ggaaaaaggg gccactcaag 240
aagccaggcc agggttggac gtgctggctc acgcctgtaa tcccagcact ttgggaggcc 300
raggcagggt gatcacgaga ttgagagtat cctggctaac acggtgaaac cccatctcta 360
ttaaaaatac aaaaaattag ccgggcatgg tgggtgggcgc ctgtagtccc agctactcgg 420
gaggctgggg caggagaatg gcatgaaccc gggagggtgga gcttgcatg agccgagatt 480
gcaccactgc actccagcct ggggtggcaaa gcgagactct gtctcaaaaa aaaaaaaaaa 540
aagccaggcc agagaaactg catttccaaa gactgccaac agaaaagaag ggagtgtcca 600
g 601

```

```

<210> 12
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 12
gtgcgagaga gaagcatgtg atgccagaga cggctgcggg ttctcaggaa gggcttcaca 60
gaggagtggc acctggacag gactttcagg gatgtgtagg aggttttggg gtggaaaaag 120
gggccactca agaagccagg ccagggttgg acgtgctggc tcacgcctgt aatcccagca 180
ctttgggagg ccgaggcagg tggatcacga gattgagagt atcctggcta acacggtgaa 240
accccatctc tattaaaaat acaaaaaatt agccgggcat ggtggtgggc gcctgtagtc 300
scagctactc gggagggtgg ggcaggagaa tggcatgaac ccgggagggt gagcttgacg 360
tgagccgaga ttgcaccact gcaactccagc ctgggtggca aagcgagact ctgtctcaaa 420
aaaaaaaaaa aaaagccagg ccagagaaac tgcatttcca aagactgcca acagaaaaga 480
agggagtgtc caggactaat ggcttgagct tgagagtggg gtgagggtgt ggggcatgga 540
acttcctgtg agccctgctc cctgacctgg ggcactacgg tcagggtgctg ctccctccct 600
c 601

```

```

<210> 13
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 13
ttaatgactt gatggggcca acatcccttc cctcataaac caggctgcgg gcttcgggcc 60
tttccagtca acacgagccc agccaggcca accttgagac ttgcctocta gggagagaac 120
gtgttcttct tgggtgaccaa ctcccttggt acgccagccc aagttcaggg cagatgccc 180
gaggtgagtt taccaggat cctcccagcg ggtcccttgt tccctcatca gcccagggtg 240
gccacccgtg tttccctttc ccttccagc gtggtgaag gctcagcctg tgctcgggtg 300
sccccaggca ctgggttaca tcttttctct aatcattatg ttcagtcttc acatatcccc 360
tgcttggtag gaagtccgtg gatccccatt tcagaggaga agactgaggc tcagtggagt 420

```

```

tgagtcactt tcttaaggcc tccaggcctg tgggtgacag gaccccgagc tctgggcagc 480
agcagttccc atgaggtgtc caggccctcc catcctggtc ctgcctctgg gtactctcca 540
ggttggtagt gtgacaccca gagctgcgca catgctcagg gaggttctaa tagcaagagc 600
c                                                    601

```

```

<210> 14
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 14
cttgccctggg gatgtccctg ggatcctgca tctgtcacag agcatgctca ttctctccag 60
ctgtgaattt tgtttgaact attgggactc aggacatagt cctgaaagtt tacctccaca 120
gtgacatctt taggcaagtc caacatttac gtgcctcctg ggctggaggg tcgttgtgca 180
gacagctgtc ccctgagccc tggaggctgg tcctagcaca gttgctggag acatcccatg 240
tccgtagttg gaaatatgca caaaggattg cttactcttt ttgtttgttt gtttttttga 300
satggagtct tgctcttgtc cccaaggctg gagttcaatg gcacgatctc ggctcactgc 360
aacctccgcc tcctgggttc aagcagttct cctgctcacc ccctgagtag ctgggattac 420
aggtgcccgc cactgtgccc agctaatttt tgtattttta gtagagacgg ggtttcacca 480
tggtggccag gctggtctcg aactcctggc ctcaggtgac ccaccagcct cggcctctca 540
aagtgtctggg attacaggcg tgagcctgcc gagagcttgg tcggggagac ctgaaccag 600
c                                                    601

```

```

<210> 15
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 15
aggtggcagg tccgatgatg ggacagaggg tgtaggtggg ggacctaggg ctgcacttga 60
gcagaatctt tttttttttt ttcttttttt tttttttgag acagagtctc gctctgtcac 120
ccaggctgga gtgcagtggc gtgatctcgg ctcaactgcac acctccacct ccttggttca 180
agcgattctc ctgcctcagc ctcccaagta ggtgggacta caggcacaca ccaccacact 240
cggctaattt ttgtattttt aatagagaca gggttttgct gtgtcggcca ggctggtctc 300
raactcctga cctcaggtaa tccgcccacc ttggcttctc aaagtgttgg gattacaggt 360
gtgccaggcc aagcagaatc ttaaaaaaag gtggggagaa gctggtgagc aggtggattt 420
ggttgaagca ggatgtcgac acagaggggg cttggtgggt aaaggccctg agctgtgtga 480
ggtgaggtgc ctttagggct acctgccact ggggtggagc gaagtgaaga tttggactgg 540
ggtgggaaga aggtagttca ggatttcagg ggcccctgta agccccacta aggagctaaa 600
c                                                    601

```

```

<210> 16
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 16
acaaagaagc agagcatgtg gctctgtctc gacctccacc caatcacgac ggccctgtct 60
ttcagaaagt cccaccgcct cattctggct tctcagaggg cctcagcctt ccttgccgcc 120
ctggtgctgg tggtcttctc gctgccccct agctgagtg cctgggcagc agtgtccatc 180
ctcagttggg gcaggacct gacctgggag gtgcccgatg ctcaagggtg ccttcgtctc 240
tggggtctgg gacccagaa agctcacctg tcctccctt ctgccagagc cccatagctc 300
yatgcctctg tgcaggcatt aatgtcccca gggtacagaa gagcgagcag gaaggagtag 360
cctgtggtcc ctcagcaagg gtgtggggtc ctgcttcaat acccaagccc ctgactctag 420
ggccctgate tttgtcagct atgtcccat gccgggcac aaaaactcac cctcccaagg 480
tatcttcacc ttccctgate tgtcatccaa attggaccag aggagctaga cctggaagaa 540
tcacttccgc atccaccagg gacagaactg tcaggaggga aggggcaggg tgcgttgtct 600

```

c

601

<210> 17  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 17  
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 actgcactag agcctggaca acagagttag accgaatcac taaaaataaa ttttttgaaa 120  
 aaggaggaaa ggggtctccc tttgtctttg aaatacagta ctgtaccttc atctggccag 180  
 ggcattgctc cgctccctcc tctgaccacc tccttttatt tgcaccctcc agctttcctg 240  
 tgtggcccca cactcagggg actctggcgg cgggggtggg aggttggtta aggtgggaag 300  
 kgggcctgtc cttcccacct tgaacctccc tgcctttgag actgggctgt ggaggggaga 360  
 catcccctgt gccattgggt actgctctct ctcaccctc agcaccctc cgtcccactg 420  
 gctaactgct gggtcgacga ggactgcccc gaaggggagg gaggcacaca cagccacggg 480  
 aactgtgggc tctgtcttcc agtggcccta gcaggggtgg ggccgggctg ggatcctggg 540  
 tggctcctga gtgcaggccc tgcctgcctc tgtccctgca tctctcttc tgccaacaac 600  
 c 601

<210> 18  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 18  
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 ttggggggcag ggttcctaga gggctctggg agaggggtccc gggcccaccc accggtggaa 120  
 aagctatgtg ctatgtgcag ggtggctctg taggcatcag agttcactgg gattgtgacc 180  
 tggacaccgg ggactctggc tgcctggcctc actactcctt ccagctgcag gagaagagct 240  
 acaacttcag gtgaggcccc actgctccca gtgcccagct gctgggcccc tcgccctctc 300  
 mctgtggcgg ccaggacaga ccacaccag gcccaggcct ctatgatatt cactacgtgt 360  
 gcaagggggg cccaggagca ggagagagct gttctcaacc ccacatcctc cagcacaggc 420  
 tccgtcctgc tgccccaagt cctgagccct ccccccatc tgtcccaggc ccctgcccag 480  
 ctcaggctcc tcactgccag cccttcctcc accccacctc gcttctagta tctcccctcc 540  
 acagcaatgg ggtgtttcat ttttactttc cccttctccc cttcagcttt gttttttttt 600  
 t 601

<210> 19  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> variation  
 <222> (301)...(301)  
 <223> 'T' can be either present or absent (single  
 nucleotide insertion/deletion polymorphism)

<400> 19  
 ggcccctgcc cagctcaggc tcctcactgc cagcccttcc tccaccccac ctgcgtttcta 60  
 gtatctcccc tccacagcaa tgggggtgttt catttttact ttccccttct ccccttcagc 120  
 tttgtttttt tttttttaag acagaatctc attctgtcac ccaggctgga gtgcagtggc 180  
 ccgacctcgg ctactgtaa cctctgcttc ctgggttcaa ccgattctcc ttctcagcc 240  
 tcctgagtag ctggaattac aggtgctcgc cactactccc agctaatttt tataattttg 300  
 tagatagaga tgggttttca caatgttggc caggctggtc tcaaaccctt gacctcagg 360  
 gatccacca cctcagcctc ccgaagggtc aggattacag acgtaaacca ccatgtctgg 420

```

cctcccttcc gcttttacct aaactttttt ttttttttg agatggagtc tcaactctgtc 480
gcccaggctg gagtacagt gcgggatctc agctcactgc aagttccgct tcccgtgttc 540
acgccattct cctgcctcag cctcccaaagt agctgggact acgggtgcac gcctccacgc 600
c                                                    601

```

```

<210> 20
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 20
ccaggaagtc taccctcagtt cccagggaa gtaggttcc catctctgga atccctcagc 60
cctgagcctg ccccttcaca tcccccgctg ctgggtctgt ttagggactc ctctgtcccc 120
cgtcctctca gcaggcaggg aacttctgag ggacaggtct tcgtttgctt tttctgtttt 180
ctcaccaatt acataggggt gagaccaggg actcaggctt gggctggggg tttatagagt 240
caattgacaa gttggacaga ggtctggcag ggccagcccc acctgggggt gggcaaagca 300
rgtcaccaga gccttctttc ctgcccacag gacagccact cactggtggg agcaaccggg 360
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gcaggtaggc acaggtaggg gtcaggccgg ggatgggatg gggcaggcag acagggtgg 480
aggaggcatg aggctgacag tcgtgggctg agaggttcag ctcatctc tctcaggcag 540
ggaagtccgg gctcatcccc acggccgtca cactgggcac cggggcagct tggctgggcg 600
t                                                    601

```

```

<210> 21
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 21
ttggccctgc ctctcccagg tcaccttttt ctgtgacctg ctactgctgt atgtggatag 60
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gacctgggt tctgccacac ttaggaagat gttggctgga tccctgacct gctgtcctca 180
tctgcaggcc aaggccccga aagcaaccgc caactctgtg tggagggagc tggcccttgc 240
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wgctgctggg agtcagacac agacaccagg atggccctgt ccaagttctg acacctactt 360
gccaacccat tccgggagcc tgtagccgtt ccctgctggt tgagagttgg gggctgggaa 420
gggctggggc ctgctggggg atctcaagga tgaggcccca gcatggagga ttgggggtag 480
aattccaccc ttgaacccca gcagacagtc cctcccctga ctcccacctt ggtagggtgc 540
tgccctcagg agccatagaa gtcggctgtg ttttgagacg gcgacagaac ctgacctcgtg 600
g                                                    601

```

```

<210> 22
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 22
atcggctcta catggggctg tgcagctgga gccaaaaagg caaggtagaa agaggagtga 60
tgggggaggg ggattgtttc agcttctctg gtgctgtgat gccccaggag agtcctaata 120
tagggaatgg ggtggagtag gcagataatc cacctcccta tccccaggc aagggcggag 180
catgtgtctt gggcccacac ctgcttagtt tatgaggacc ggctgctttc cagtggtagc 240
ccttttgcca tggaggtctg ggagagagag cagagggcgg cagggtctag ttggtgatca 300
ytgggttctt caggaccttc tatatccctc ctcggttaacc cccagccca accccttggg 360
atctttcctc caggcttctt gagagccctg ggggtgggag gctgtgggag gctgtacatc 420
tgaaattcac ttcagtccaa gtcataccta ggaagctgtc tgggcagctg ctcgaggag 480
gccctggctc tgatcccagg ctggatggag tggctggaag gaatggttcc aaacaacacc 540
accgagatct ccctcaggct ggccaggttt tgcagctgga attctcctct tgggtcccagg 600

```

g

601

&lt;210&gt; 23

&lt;211&gt; 601

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 23

```

aaggcaaggt agaaagagga gtgatggggg agggggattg tttcagcttc tctggtgctg 60
tgatgcccc aagagagtcct aatctagga atgggggtgga gtaggcagat aatccacctc 120
cctatcccc aggcaagggc ggagcatgtg tcttggggcc acacctgctt agtttatgag 180
gaccggctgc tttccagtgg tagccctttt gccatggagg tctgggagag agagcagagg 240
gcggcagggc taagtgggtg atcattgggt tcttcaggac cttctatata cctcctcggt 300
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gaaggaatgg ttccaaacaa caccaccgag atctccctca ggctggccag gttttgcagc 540
tggaattctc ctcttgggtc cagggcgggg caggggaattc taagtgtcca cccaggggag 600
g

```

601

&lt;210&gt; 24

&lt;211&gt; 601

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 24

```

agggccctg aggcctgggt atccaaggag gggcacgtgc acctgattct ccttggggcc 60
cagaggaagc tgatgtcatg gctggacaaa gtcacggagt aaagccagca aagccacctc 120
cttcctgtgt agtccttaca ggcactgact gaaagttggg gggcatctat ggtagacatg 180
gcacagccat gaagagacca gtgggggtgt gcagggtgga cttggggacc ctaccctga 240
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ygtgcacca tgtaggagca tgagggccac actcttttca cctcaaagcc cttgaagagt 360
gggcaaagac agcaagagag ctgcagcctg gggccgagct cagaaacagc tgtcgccctc 420
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ggtgcctgtg ccaggcaggc ctcagggtga tgccatgctc agaaccctgc tgccctttct 540
aggcagcctc cttggggccc aagctctgct ccctggatct gccacctagc agacgtgggg 600
a

```

601

&lt;210&gt; 25

&lt;211&gt; 601

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 25

```

gcctcagtct gcgcacaggc atgcacccca gggtagtgcc tgcagggatg catgtgtccc 60
cgtgggggtg cctgtgccag gcaggcctca ggtgcatgcc atgctcagaa cctgctgcc 120
ctttctaggc agcctccttg gggcccaagc tctgctccct ggatctgcca cctagcagac 180
gtggggagcc tgaccccatg cctgtcatgg aacctcctt gcctggtgtg tgtggctccc 240
ctcttcactg ggcacctgga tccaggccca cctgtgtccc tgactcaggg tgggtcccagg 300
mctggcacct actctttaga gagccccagc atctttgatg tggattggag acaattgcct 360
ggttccctgg ggcaggtgaa gacttgggtg cacaagaat gccacagtgg atacgccagc 420
aggccacatg gctggccaag caattattat tatggatccc ttgggctgtg ggccttccca 480
tccacccac cacaactgcc caggtagctg gagctgatca taaacaagaa ggctctgggc 540
agagtccatg gcaccagcac cagccaaggc ccactcctga agaccgaag cccagccctc 600
g

```

601